DOCUMENT RESUME

ED 306 745 EC 212 809

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TITLE Technology Integration in Problem Solving Training: The Family Perspective.
PUB DATE Dec 88
NOTE 28p.; Paper presented at the Council for Exceptional Children/Technology and Media Division Conference on Special Education and Technology (Reno, NV, December 11-13, 1988).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Computer Assisted Instruction; Computer Software; *Disabilities; Elementary Education; *Expectation; Family Environment; Hebrew; Instructional Effectiveness; *Intervention; Junior High Schools; Keyboarding (Data Entry); Microcomputers; Parent Attitudes; *Parent Participation; *Parent Role; Parent Student Relationship; Preschool Education; Sex Differences; Writing Skills

ABSTRACT

Two studies explored parental expectations and home computer practice in families with special needs children. The first involved 48 parents of special needs children, aged 3.6 to 14.5 years. On a coping instrument, a mood scale, and a difficulties and expectations scale, parents indicated that important concerns for their children included: ability for independent life in adulthood, vocational opportunities, learning difficulties, and leisure activities. Health difficulties, discipline problems, and social difficulties were less emphasized. Parents viewed the computer as a source of help in learning, leisure activities, and widening future vocational possibilities. Compared to mothers, fathers expressed higher levels of concern regarding their children's difficulties and higher expectations from use of technology. In a second study, 14 fathers and 10 mothers, representing 18 families, participated in group meetings which involved a study of information processing and problem solving; and training in use of Niflaot software, a Hebrew software which enhances keyboard and writing skills of special education children. Observations revealed that parents initially had overenthusiastic expectations, and subsequently reduced their active involvement due to parental role overload and fatigue. Fathers were more involved than mothers and slowly developed a new ground for parent-child interactions, but also experienced fatigue and role overload. (JDD)

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Technology Integration In Problem Solving Training: The Family Perspective

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Presented at the Annual CEC/TAM International Conference on Technology and Special Education, December, 1988, Reno, Nevada.

The authors would like to acknowledge the editorial assistance of Dee M. Bargteil.

EC 212809

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Abstract

The aim of the present study was to explore parental expectations and home computer practice in families with special needs' children, and to investigate modes for parental training. In view of the continual stress faced by families with special needs' children, the present project aimed to investigate a parent training model to serve as a support for children's computer learning and to affect parents' coping strategies. Through learning keyboard and word processing skills, the children participated in problem solving training at their schools. Parental training at Tel Aviv University, performed in small groups, demonstrated a systemic family dynamics approach which was integrated with cognitive therapy concepts. Parents' expectations were studied as related to the new possibilities that technology may offer to their children, and the fathers' new and unique role was emphasized. A pilot study, experimenting with parent group strategies, was used to demonstrate possibilities and difficulties.

Technology Integration In Problem Solving Training:

The Family Perspective

The literature contains strongly held expectations about the educational empowerment of children and parents through the use of microcomputers at home (Papert, 1980; Turkle, 1984). Educators have thought about using computers not only as a means of helping children learn in school, but also as a way of bringing education into the home. Research suggests that the home-school connection, which is an important factor in learning in general, is also important regarding computer use (Epstein, 1985).

Epstein (1985) defined "parent involvement" as "the teacher's requests and instructions to parents to assist at home with learning activities related to the children's school work" (p.19). She reported that when teachers involve parents regularly, students' achievements, feelings, and behavior improve (Becker & Epstein, 1982). The value of parental involvement in the education of special needs' children is well accepted and emphasized. The application of technology to assist these children in schools calls for an investigation of technology's effective usage not only in the educational systems, but also in the homes of children with special needs. It should be remembered that parents of special needs' children have often been encouraged to purchase home computers, assuming that they could be used to provide activities for enrichment, remedial work, and improvement of basic skills as well as thinking skills, writing, and computer literacy (Levin, 1988). However, not much thought has been given either in regular education or in special education as to how the home

microcomputing activities can be connected to children's in-school activities (Levin, 1988). The aim of the present study is to explore parental expectations and home computer practice in families with special needs' children, and to investigate modes for parental training.

The presence of a handicapped child in the family has been conceptualized as a source of considerable and persistent stress (Gallagher, Scharfman, & Bristol, 1984). Farber (1959) suggested that it may result in an arrest in the life cycle of the family, and may affect the entire patterning of roles in the family. Gallagher, Cross, and Scharfman (1981) reported that although in many families mothers performed most caring responsibilities, both fathers and mothers agreed that fathers should play a more active role in the children's care; however, there was an inadequate knowledge in these families of how the father could change his role in order to enable more equal division of the increased needs in the family. In many homes, the father's role is primarily to assist the mother in carrying her increased burden, but a unique parental role not only as mother's helper is constantly being sought out by researchers (Gallagher, Cross, and Scharfman, 1981) of families with disabled children.

The computer's entrance into the home creates a new environment for many families, pinpointing the need for ecological research and definitions of new parental roles. Giacquinta and Lane (1988) have proposed a model for usage of home computers. According to this model, the two major forces behind the extent and range of children's home computing efforts are (a) School leadership: the degree to which teachers emphasize the value of parental involvement, and increase

parents' knowledge with regard to computer opprtunities and modes of home usage; and (b) Parental leadership: the degree to which parents assist with the child's activities. Recent research in nondisabled children's computer usage has indicated that, although these children were engaged in educational microcomputing in their school settings, parents and teachers seldom worked together to promote such activities at home (Edyburn & Lartz, 1987; Epstein, 1985). Although schools should carefully consider the possible contribution of home computers to classroom learning, only a few schools have attempted to coordinate these activities with homes (Epstein, 1985). A study of parent-child home computing interrelations among 51 families of nondisabled children (Levin, 1988) demonstrated that (a) the parents did not perceive a need to become involved in their children's educational microcomputing efforts at home, and (b) the children's school did not work to create a need for parents' involvement, or opportunities for home-school integration. As a result, the children were not using their home computers for academic learning, although there was some utilization of the computers for word processing and for programming. Neither children nor parents seemed aware of how their home computers might be used to extend school learning. Many parents were not knowledgeable enough about academic microcomputer activities to realize that it may have been necessary for them to become involved in such activities, if they wanted their children to engage in them. The use of computers at home by nondisabled children was found to be completely separated from its uses at school, and some parents even conditioned the use of computers at home to fixed times during the week, or postponed its usage until schoolwork had been completed: "My

father says that the computer is for fun and the schoolwork is serious" (Levin, 1988).

Game playing was usually the primary computer activity, and there was a widespread acceptance of game playing by the parents of nondisabled children. In addition, about one third of these children mentioned using their computers for word processing; however, in most cases it sounded as if word processing had only been used for an occasional report. Many parents seemed to feel that once they had bought the hardware, their job was completed; they did not recognize the importance of good software and were not aware of existing educational programs and applications of software for assisting children academically or otherwise.

At the same time, schools have not been creating a need for parent involvement in educational computer activities, nor have they created opportunities for such involvement. Schools have not been helping to make parents aware of how computers at home can be used to support and enrich classroom work. In special schools and classes, a wide gap was found between formal and informal school-home interrelations. Headmasters and teachers, during meetings at Tel Aviv University's School of Education reported that parents, and especially fathers, were active and helpful during the first stages of the computer's entrance into the schools. They assisted schools in finding resources for acquiring the hardware and software and aided teachers in operating the new technology whenever a difficulty was met. Even fathers who seldom tended to visit these schools and who often expressed complaints and dissatisfaction with the system, were rather enthusiastic in their offering of help and demonstrated appreciation

of the role of the new technology integration in their children's education and rehabilitation process. However, most of the parents' activity was performed in the school environment. Although many families already had computers at home, parents were rarely advised in a planned manner with regard to guidelines for computer usage in order to help their children, and with respect to increasing the cooperation between school and home practice.

In the study of computer usage at home, consideration should be given not only to school practices, but also to parental characteristics which may affect their ability to provide assistance. Various parental aspects affect the home computing: parents' role overload; their availability and involvement in their children's learning in general, and learning with computers in particular; parental knowledge of computers and relevant software; and their attraction to and use of the microcomputers.

Wolins (1988) studied parent-child interactions as related to computers. Four main types of parental involvement were defined:

1. Construction of household rules governing computer use.
2. Provision of supportive verbal reinforcement to children.
3. Physical support such as helping the child to use the computer.
4. Learning to use computers from their children.

Wolins (1988) found that only a few parents of nondisabled children did coaching or guiding to facilitate their children's microcomputing use, and over time, this limited parental instruction even decreased gradually. Parents themselves rarely requested assistance from their children during personal computer efforts. The

only continuous interaction was related to family rules, and one of the children very quickly became the major user of the home computer, usually the brighter male, whereas other siblings who may have needed it more, such as those with learning difficulties, had to struggle and required parental support in order to get frequent access to the computer. The interrelations between siblings are another aspect of the family system that should be considered. Not only did parents demonstrate or guide children's learning on the computer, but siblings did as well, usually in game playing and less commonly in school-related subjects.

Another important aspect that should be studied in home computing for special needs children is related to the fathers' and mothers' unique parental roles. In a study of fathers and mothers of nondisabled children, sex-role differences in usage patterns were defined. Bauer (1988) identified six key patterns of differences:

1. Frequency: Female members of the family used the computer less often than the males, with the adult females particularly "distanced" from the machine. However, a pattern of generation difference emerged between mothers and daughters. Although daughters were not often the major users, they clearly had more interactions with computers than their mothers.

2. Decision making: Male family members were more instrumental than females in decisions about home computers, with fathers most often regarded as the "computer adoption person". In general, decision-making and communication patterns related to computer adoption and use reflected other decision-making occuring in the families studied, and the use of the microcomputer seemed to be shaped

as a reflection of the existing family structure.

3. Applications: Males and females differed in types of uses for the home computers, with the male use and interest broader in range. Males' computer use included game-playing, programming, work and school-related applications, telecommunications, pirating of software, and "tinkering" with the machine. In addition, several fathers' occupations seemingly supported their applications of the home computer. For the female adults, the primary and almost exclusive application of the computers was word processing. A few mothers who had tried their hand at games eventually lost interest. Sons, like fathers, exhibited a range of computer interests, with the primary usage being game-playing. Approximately half of the sons engaged in some programming and word processing. Daughters did not dominate the machine. They used the computer primarily for game-playing, often with their brothers, and for word-processing and some graphics. Collis (1985) reported that girls more than boys tended to hold a limited view of computer uses and a stereotyped image of computer users, seeing them as bright and studious.

4. Attitudes: Males and females differed in their perceptions of and attitudes toward computers. Males frequently articulated their enthusiasm, appreciation, and special relations with the home computer, calling it an aid to relaxation, "smashing", "my mistress", "my good friend". In Bauer's (1988) study, a clear gender difference emerged in the ways that men and women expressed their subjective expreriences of the computer. Turkle (1984) explored aspects of the "subjective computer" and how people view it. Using Turkle's notions, Bauer (1988) identified the differing metaphors, suggesting that the

"male" computer had a playful or recreational quality (a toy), whereas the "female" computer was utilitarian (a tool that did or did not have a practical application). Women viewed computers primarily as technological tools with an instrumental value, whereas the men and boys more readily saw its expressive potential, and in many instances established a personal connection to it.

5. Social interactions: While computer involvement implies potential isolation from social contact, which Turkle (1984) described as characteristic of computer "hackers", for many male members of the family the computer had a social association through their game playing and pirating of software with peers. In some families the father and son spent hours together at the computer. Moreover, many males seemed eager to share their computer expertise with others, and became enthusiastic about teaching theoretical and technical aspects. For the females in this study, the social component of computer use was limited to some game-playing with other family members, and dependence on other family members for technical assistance. Women did not mention sharing their computer experiences with friends. For daughters, peer influences on the computer usage seemed minimal.

6. Anxiety and self-efficacy: Many women were resentful, estranged and primarily anxious about the computer usage. The computer interactions for the mothers often seemed to have a particularly threatening impact on the women's sense of competence within their households. As a result, mothers were not actively involved in supporting their children's computer interest. They did not (or could not) take the role of a teacher in relation to their children's computer interest, unlike some fathers who played games with,

assisted, or even wrote computer programs for their children. Bandura's (1977) concepts of self-efficacy add an important explanation to this situation. The fear to learn to use computers greatly influences one's willingness to engage in such a task as well as the effort and the persistence one maintains in the process.

Parents of special needs' children have a developing awareness of technology's possible role for their children. The rapid entrance of computers into their homes reflects their growing expectations from advancements in technology. However, in an attempt to meet these expectations, a detailed study of home computing in families of disabled children should be performed. The aims of the present study are twofold: (a) to investigate sources of stress, expectations from technology, and coping modes in these families, and (b) to report a pilot study of parental training.

Study 1: Parental Expectations From Technology

Method

Subjects

The sample consisted of 24 fathers and 24 mothers from among 48 families of special needs' children (29 boys and 19 girls). In each family only one member's (father's or mother's) questionnaire was analysed. In cases where both parents completed the questionnaire, the mother's questionnaire was not included in this analysis, in order to avoid dependent measures and yet to achieve an adaptable number of participants in each gender group (thus five questionnaires were not included). The children's ages ranged from 3.6 to 14.5 years, with a

mean age of 9.49 years (SD = 2.74). The children's difficulties represented a wide range of disabilities (22 learning disabled, 12 mentally retarded, 13 cerebral palsied, and 1 hearing impaired).

Fathers' ages ranged from 32 to 57 years (M = 41.20, SD = 6.36), and their years of education ranged from 10 to 19 (M = 14.85, SD = 2.27). Mothers' ages ranged from 27 to 49 years (M = 37.17, SD = 5.20), and their years of education ranged from 10 to 18 (M = 13.79, SD = 2.06). No significant differences were found between the fathers and mothers who participated in the study and their husbands and wives with regard to ages and education levels.

Instruments

Coping Scale. The Hebrew coping scale adapted from Moos, Cronkite, Billings, and Finney's (1987) Health and Daily Living Form was used to show parents' view of their coping strategies. The scale consisted of 33 items on a 4-point Likert scale from Not appropriate (1) to Yes, fairly often (4). Higher scores indicated higher perceived use of the particular coping mode.

The Hebrew adaptation was factor analysed, and four factors were identified: (a) Avoidance Coping consisted of 9 items such as "Tried to reduce tension by eating more," with an internal consistency of .65; (b) Interpersonal/Affective coping consisted of 4 items such as "Talked with a friend about the problem," with an internal consistency of .67; (c) Problem Solving consisted of 4 items such as "Made a plan of action and followed it," with an internal consistency of .58; and (d) Cognitive Evaluation consisted of 4 items such as "Tried to step back from the situation and be more objective," with an internal consistency of .54.

Mood Scale. The Hebrew mood scale adapted from Moos, Cronkite, Billings, and Finney's (1987) Health and Daily Living Form was used to show parents' view of their general affective state. The scale consisted of 29 items on a 5-point Likert scale ranging from Not at all appropriate (1) to Very appropriate (5). Higher scores indicated higher perceived affect.

The Hebrew adaptation of the scale was factor analysed, and four factors were identified: Positive Mood, consisting of 7 items such as "Energetic" and "Outgoing," with an internal consistency of .84, (b) Self-Confidence, consisting of 6 items such as "Successful", with an internal consistency of .81, (c) Global Depression, consisting of 6 items such as "Have difficulty sleeping, or sleeping too much," with an internal consistency of .74, and (d) Distressed Mood, consisting of 9 items such as "Tense, irritable" and "Worried," with an internal consistency of .88.

Difficulties and Expectations. This scale was developed for the present study. It included eight areas that may be considered a source of difficulty for disabled children: health problems; present mood; future vocational opportunities; opportunities for future independence in adult life; present leisure activities; current social difficulties; present disciplinary problems; and current learning difficulties. Parents were asked to rate 16 items on a 6-point Likert scale ranging from Slightly (0) to To a great extent (5). Regarding each item, parents were asked to what extent they view this area of children's difficulty as a cause of their worry and preoccupation, and to what extent they expect technology to help their children in this area.

Results

Children's difficulties and parental expectations from computers

The following areas were highly rated by fathers and mothers, reflecting their importance: ability for independent life in adulthood, future vocational opportunities, learning difficulties, and leisure activities. Health difficulties, discipline problems, and social difficulties were less emphasized.

The analysis of expectations from computers revealed that fathers and mothers viewed the computer as a source of help in the children's learning and leisure difficulties, and as a help for widening future vocational possibilities. Significant correlations were found between difficulties and expectations in the following areas: Learning difficulties ($r(47)=.30$, $p<.05$), vocational opportunities ($r(47)=.45$, $p<.01$), independence ($r(47)=.51$, $p<.01$), and mood ($r(47)=.34$, $p<.05$). Expectations from home computing seemed to be related to the major sources of parental worry related to their children.

Sex-role differences

The comparison of the fathers' and mothers' perceptions of difficulties revealed significant differences in the following areas: difficulties in vocational opportunities, independence, mood, and planning leisure activities. In four out of eight areas of difficulties, fathers reported higher levels of concern. Means, standard deviations and t scores are presented on Table 1.

Insert Table 1 about here

The comparison of the fathers' and mothers' expectations from the computer revealed significant differences in the following areas: leisure activities, mood, health problems, and social difficulties. Fathers expected more than mothers that the integration of computers may help their children in four out of eight areas of difficulty.

The comparison of fathers' and mothers' mood subscales did not reveal significant differences; however, the comparison of the coping scale scores, with the father/mother grouping as the independent variable, revealed a significant main effect ($\underline{F}(4,43) = 3.43$, $p<.01$). Univariate analyses of the subscales revealed significant differences in Avoidance and in Interpersonal/affective coping. Mothers reported higher scores in their usage of these coping strategies. Means, standard deviations, and $\underline{F}$ scores are presented on Table 2.

Insert Table 2 about here

Discussion

The results of the study emphasized the expected role of computers in interventions for special needs children. These parents expected their home computing to help their children regarding present academic and leisure difficulties and future vocational opportunities. These expectations were related to areas that these parents reported as extremely important, and as a source of worries and concern.

Fathers expressed higher levels of concern regarding their children's difficulties, and they also reported higher expectations

from the integration of technology. This should be emphasized in line with earlier studies of parents' gender differences. The study of coping strategies revealed that mothers preferred two types of coping: Interpersonal coping -- receiving support from others; and Avoidance coping -- an attempt to avoid direct confrontation with and excessive worry due to the source of difficulty. The higher levels of fathers' expectations from computers are in line with the research on fathers' coping style and on the subjective meaning of computers for the male members of the family. These fathers even expected computers to help in the health difficulties of their children, an area that mothers viewed as not applicable to computer solutions. Male's coping preferences were usually expected to be more instrumental, and the fathers' expectations from computers support this notion.

The constant search for a unique father-role in families of special needs' children leads us to attempt to reinforce these fathers' enthusiastic interrelations with computers in order to encourage them to support their children's home computing. The present study further emphasized the need to pinpoint areas relevant to reported parental expectations from technology: Academic difficulties and leisure needs in the present, with an eye to widen vocational opportunities in the future. Intervention planning should be aware of this rare opportunity to help fathers in developing a unique male parental role in the family, but at the same time, care should be taken not to neglect mothers' interest and involvement. The following pilot study will demonstrate some of these explorations and experimentations.

Study 2: Pilot Study

The sample consisted of 18 families: 14 fathers and 10 mothers. In six families the two parents participated in the group, and one of the fathers even brought a nondisabled sibling (aged 11) as a support. The age range was 31 to 57 years and the educational range was 10 to 18 years. The disabled children's ages ranged from 5 to 14, and their difficulties represented mostly children with learning disabilities and mental retardation, with the youngest child (aged 5) having cerebral palsy. All the parents in this group had computers at home, wanted to use the software being used at their children's school or afterschool club, and wanted to be more involved in their children's out-of-home computing. Some of the parents had extensive knowledge in the area of computers, especially in their work life, and others had just purchased a computer without knowing how to use it. No attempt was made to reach a homogeneous group, as this is a completely new area in need of investigation, and a qualitative study method was selected.

The intervention was a combination of (a) four group meetings at Tel Aviv University with a month's interval between meetings, and (b) telephone conversations with each family between meetings. The second and the third authors of the paper, who are psychologists, were the group leaders, and each maintained telephone contacts and discussions with 9 families. Each meeting included (a) an informative part, in which the parents learned how to use Niflaot software (a Hebrew software that was developed at Tel Aviv University to enhance keyboard and writing skills of special education children) which was taught at their children's schools, and (b) study of the theoretical and

practical aspects of successful information processing and problem solving, as related to the software. Concepts from cognitive psychology and behavior modification were discussed as related to their children's specific needs. The theoretical input was provided in order to increase parental involvement and support in the children's activities at their schools. At the first stage, parents were encouraged to train their children at home with the software. Parents shared their experience and difficulties with other parents during the meetings and with the group leader in the telephone conversations. The following observations were reported:

1. All the children were very excited when the parents returned from the meeting with the software. At first they were very eager to use it at home. Parents reported that "The children were very happy with the program, like a meeting with an old friend," "My daughter works better with the program than does any other family member, and she is very proud of that." Parents even said "We got very good scores," using the word "we" to reflect their joint feelings of effort and pride. Several children worked with the software for hours at first; however, very quickly some of the children developed an avoidance attitude, similar to that evidenced in their behavior with other academic subjects. The parents expressed their frustrated feelings that the children viewed the program as another mode of homework and treated it in a similar manner. Many times, the children preferred games, and the parents felt annoyed.

2. In five families only the fathers were involved; in four families only the mother was involved; and in the remaining families no clear division of responsibility with regard to home computing was

reported. The families regarded the child's activity with the computer as important, and some children used this attitude as a means to get more parental attention and support by calling for more attention and help when working on the computer. These parents expressed concerns regarding whether through the computer usage, the children would increase their dependence on the parents.

3. As time progressed, parental involvement decreased, and parents began complaining about their role overload and their fatigue after a long working day. They described their impatience with the child's slow advancement and attempts to receive more attention. The pilot group's aim was not emotional sharing and/or an outlet for anger; however, dynamic interrelations between the group members began to develop. Parents severely criticised those who reported how they devoted time for their children and how their efforts were successful, but the group fully supported those who expressed frustration, anger, and helplessness.

4. During the discussions, fathers and mothers alike tried to provide their children with various academic software, with similar discouraging results.

5. Regardless of the frustrations, parents demanded a continuation of the meetings and telephone calls. Their attendance was prompt and consistent, and during the meetings they experimented with ways of supporting and reinforcing their children's computer-related activities. They began to feel that their initial expectations for their children's extensive training and for a miracle therapy were not realistic. Slowly they began developing a more modest mode of parental involvement and support. The value of games was explained,

and the parents learned how to use them to increase their children's insight into effective problem solving.

6. As related to home computing, parents discussed subjects such as: (a) children's motivation to invest great effort and patience in new areas, (b) how to emphasize success for children who are often frustrated, and (c) how to encourage curiosity and explorative behavior in children who in new situations are anxious and tend to be passive and dependent in their behavior style.

7. Parents' and children's individual differences were continuously emphasized. Some parents were able to devote much time to the home computing, whereas others were only able to support and reinforce desired activities. Some children learned very quickly and were able to present typed homework to their parents, while others developed rare talents for excuses and avoidance of various kinds of duties. Some children enjoyed computer games, while others loathed them. Most fathers found the computer an enjoyable activity to share with the disabled child, and some mothers reported similar attitudes.

Conclusions and Recomendations

The present study attempted to investigate parental involvement in home computing among families with special needs children. High expectations from computers as an aid for these children, especially in academic and leisure areas, with an aim to increase vocational opportunities, resulted in ambivalent attitudes and behavior. The constant search for a miracle via the "magic machine" provided the computer's entrance into the home with overentusiastic expectations.

The everyday computer practice confronted these parents with well-known difficulties and debates regarding the parents' level of involvement in their children's education. Similarly to parents in regular education, their active involvement was gradually reduced in many homes. In the present case this decrease in invovement can be attributed not to the lack of guidance and appropriate software, but rather to parental role overload and fatigue.

It should be emphasized that from the start, fathers were more involved, expressed higher expectations in various areas (even unrealistic ones) and slowly developed a new ground for parent-child interactions. However, their excessive demands from themselves and their children resulted in feelings of fatigue and role overload. In order to maintain this new father role, attempts should be directed to model and experiment with different types of father-child interactions to support this new prospect.

The conclusions of the present qualitative study pinpoint the need to develop different types of parental involvement, as a reply to the individual differences in parents and children. A single model of parental tutoring may fit one family, but will be accepted as a complete mistake in other homes or in different ecological systems. Further studies are needed to explore methods of computer integration into homes of disabled children, with and without the external support of experts. It is of special interest to investigate whether parental involvement in home computing among families with and without special needs' children will be different. Ecological studies on the one hand, and experimentations among different kinds of parent groups on the other, may be used together to enrich our knowledge of effective,

varied ways for counseling parents in assisting their special needs children. The fulfillment of the new technologies' promises for these children and their families, and the development of parental roles in supporting these processes, call for extensive research in home computing for special needs' children.

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Table 1

Means, Standard Deviations, and t Scores for Fathers' and Mothers' Perceptions of Disabled Children's Difficulties and of Expectations from Computers

	Fathers		Mothers		t
	M	SD	M	SD	(46)
Children's Difficulties					
Health	1.75	1.70	1.08	1.22	1.52
Mood	2.54	1.62	1.70	1.57	1.81*
Vocational	4.21	1.06	3.38	1.66	2.07*
Independence	4.25	1.19	3.17	1.71	2.55**
Leisure	3.50	1.62	2.58	1.41	2.09*
Social	3.08	1.72	2.50	1.56	1.23
Disciplinary	2.38	1.79	2.13	1.42	0.54
Learning	3.54	1.35	3.29	1.40	0.63
Expectations From Computers					
Health	0.42	1.18	0.00	0.00	1.74*
Mood	3.00	1.35	2.13	1.60	2.05**
Vocational	3.49	1.41	2.96	1.92	1.03
Independence	2.96	1.40	2.42	1.79	1.17
Leisure	4.13	0.80	3.42	1.28	2.30*
Social	3.00	1.35	1.88	1.51	2.72**
Disciplinary	1.96	1.46	1.46	1.47	1.18
Learning	4.08	0.72	3.75	1.07	1.26

*p<.05, **p<.01, one-tailed.

Table 2

Means, Standard Deviations, and F Scores of Fathers' and Mothers' Coping Strategies

Coping	Fathers		Mothers		F(1,46)
	M	SD	M	SD	
Avoidance	1.37	0.46	1.63	0.32	5.44*
Interpersonal	2.60	0.71	3.07	0.45	7.56**
Problem Solving	2.97	0.90	3.32	0.73	2.25
Cognitive Evaluation	2.97	0.84	3.05	0.68	0.14

*$p<.05$, **$p<.01$.